which at least one of said display layers has a dissimilar sub-pixel pattern to the other display layer(s) such that moiré interference is reduced.

[0028] The term 'sub-pixel pattern' as used here-in should be interpreted to mean the arrangement of the sub-pixels being the colour filters and their associated components.

[0029] Preferably the dissimilarity in sub-pixel pattern between the at least two display layers is that on each layer the sub-pixels are different in shape and/or arrangement to the sub-pixels that on other display layer(s). For example (and without limitation) in typical display devices a red, green and blue sub-pixel or colour filter is used. By re-arranging their layout, shape and/or size (or even the materials which are used to make up those sub-pixels), moiré interference will be change when such display layers are overlapped.

[0030] Generally, the greater the dissimilarity or the lesser the "correlation" between the sub-pixel patterns on the at least two display layers that have dissimilar sub-pixel patterns, the less moiré interference will be experienced when those display layers are overlapped.

[0031] Preferably the pixel and sub-pixel patterns employed allow a high transmissivity of light through the front display layer(s) to the viewer.

[0032] Alternatively and at its most simplest the use of a different materials at the component and/or sub-component can create a dissimilarity in the pixel pattern and/or sub-pixel such as (without limitation) if a different material is used for the black matrix which encompasses each pixel causing for example (without limitation) a thicker or thinner or more transmissive black matrix, a different pixel pattern will be present.

[0033] Accordingly, in a further aspect the invention may broadly be said to consist in a multi layer display device comprising at least two display layers which have tessellated pixel patterns and which are at least in part overlapping in which at least one of said display layers has a dissimilar sub-pixel pattern to the other display layer(s) such that moiré interference is reduced and where said dissimilarity between pixels on different display layers is that at least one of the borders of said pixels has (have) different curvature.

[0034] Preferably the at least one curved pixel border will be tessellated with its neighbouring pixels.

[0035] Accordingly, in a further aspect the invention may broadly be said to consist in a multi layer display device comprising at least two display layers which have tessellated sub-pixel patterns and which are at least in part overlapping in which at least one of said display layers has a dissimilar sub-pixel pattern to the other display layer(s) such that moiré interference is reduced and where said dissimilarity between pixels on different display layers is that at least one of the borders of said sub-pixels has (have) different curvature.

[0036] Preferably the at least one curved sub-pixel border will be tessellated with its neighbouring sub-pixels.

[0037] Accordingly, in a further aspect the invention may broadly be said to consist in a multi layer display device comprising at least two display layers which have tessellated pixel patterns and which are at least in part overlapping in which at least one of said display layers has a dissimilar pixel and/or sub-pixel pattern to the other display layer(s) such that moiré interference is reduced and where said dissimilarity between display layers is that at least one of the boundaries of the pixels and/or the sub-pixels are at an angle to one another.

[0038] Accordingly, in a further aspect the invention may broadly be said to consist in a multi layer display device comprising at least two display layers which are at least in part overlapping where the display layers are configured such that the overlap of like components on different display layers that are contributing to moiré interference is arranged in such a way that each such moiré contributing component is overlapping a dissimilar component on the other display layer(s) and thereby moiré interference is reduced.

[0039] Accordingly, in a further aspect the invention may broadly be said to consist in a multi layer display device comprising at least two display layers which are at least in part overlapping where the display layers are configured such that the overlap of like sub-components on different display layers that are contributing to moiré interference is arranged in such a way that each such moiré contributing sub-component is overlapping a dissimilar sub-component on the other display layer(s) and thereby moiré interference is reduced.

[0040] Preferably there is no overlap of similar components and/or sub-components but alternatively and more practically any reduction in overlap of similar components and/or sub-components will affect moiré interference, such that part but minimal overlap of like components and/or sub-components is preferred.

Correlation

[0041] Accordingly, in a further aspect the invention may broadly be said to consist in a multi layer display device comprising at least two display layers which are at least in part overlapping in which at least two of said display layers have components surrounded by black matrix and the overlap of said black matrix on different display layers is arranged such that the pattern of black matrix on a layer is overlapping a dissimilar pattern of black matrix on the other layer(s).

[0042] Preferably there is no overlap of similar black matrix pattern but alternatively and more practically any reduction in overlap of similar black matrix pattern will affect moiré interference, such that part but minimal overlap of similar black matrix pattern is preferred.

[0043] Accordingly, in a further aspect the invention may broadly be said to consist in a multi layer display device comprising at least two display layers which are at least in part overlapping in which at least two which are comprised of sub-pixels including colour filters and the overlap of said sub-pixels on different display layers is arranged such that the pattern of sub-pixels on a layer is overlapping a dissimilar pattern of sub-pixels on the other layer(s).

[0044] Preferably there is no overlap of similar sub-pixels and/or sub-pixel patterns but alternatively and more practically any reduction in overlap of sub-pixels and/or sub-pixel pattern will affect moiré interference, such that part but minimal overlap of similar black matrix pattern is preferred.

[0045] Accordingly, in a first aspect the invention may broadly be said to consist in a display multi layer device